



Excellence Through Education

Achieving Excellence

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By John Ford

Predictions for 2005

A New Year, a time to stop and consider the year past. All of us can think back and recall events we wish had not happened. We are all too aware these days of everything bad that can happen in our homes, our families, our towns, our countries, and our world. The world can seem very complicated, automated, and regulated: very much out of our control.

The greatest challenge for most of us in 2005 will simply be the same one it has been for many years: to maintain a positive attitude. **You must believe you can make a positive difference.** Believe it and you WILL make a positive difference. It helps to remember that you are where you are, doing what you do, largely by your own choice. Believe in yourself! This year, either believe in your choice to do whatever you are doing, or decide now to make a different choice!!

Life will go on in 2005. New medical cures will be found, justice will prevail in the courts, and somewhere a young couple will fall in love and marry. A beautiful healthy baby will be born, there will be new software that actually works. And there will be an even greater number of opportunities to live, love, laugh and learn. Stay positive, believe in yourself and believe that you are making a positive difference. Have a great year!👍

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Outstanding leaders go out of their way to boost the self-esteem of their personnel. If people believe in themselves, its amazing what they can accomplish.

- Sam Walton-



Ministry of Labour News

Suncor Energy Products Inc. fined \$325,000 for a violation of the Occupational Health and Safety Act that resulted in the death of a young worker.

On Aug. 14, 2003, a worker had just finished switching pumps in a vacuum unit (equipment used in the production of petrochemical products) when super-heated crude oil was released from the unit. The hot oil immediately ignited into a flash fire resulting in fatal injuries to the worker. A joint investigation by the Ontario Fire Marshal's Office and the Technical Standards and Safety Authority found the fire occurred as a result of the release of crude oil through an open drain valve located downstream from pumps in the oil recycle line of the vacuum unit. A Ministry of Labour investigation found there were "bull plugs" (stoppers) missing from the recycle line, contrary to the refinery's standing orders. The deceased worker was a Lambton College student in Sarnia and was employed by the refinery as part of a co-op program for chemical production engineering technology.

Suncor Energy Products Inc. pleaded guilty, as an employer, to failing to take the reasonable precaution of ensuring that all bull plugs were maintained in place. Contrary to Section 25(2)(h) of the Act.

Pioneer Construction Inc. fined \$100,000 for two violations of the Occupational Health and Safety Act that resulted in critical leg injuries to a worker.

Sept. 21, 2001, a dump truck driver was unloading a mixture of sand and salt from a dump truck onto a low-level unloader when the driver fell onto the unloader's moving conveyor belt.

The incident resulted in the driver

having to have both legs amputated. The driver had been hired just 16 days earlier.

A Ministry of Labour investigation found various moving parts on the conveyor did not have proper guarding devices. The Ministry also found the injured worker was not given any specific training on how to use the low-level unloader, which had been left unattended and running.

Following a trial, Pioneer Construction Inc. was found guilty, as an employer, of:

1. Failing to ensure the conveyor of a low-level unloader was equipped with, and guarded by, a guard or other device that would prevent access to a moving part, as required by Section 24 of the Industrial Regulations, contrary to Section 25(1)(a) of the Act; and
2. Failing to provide information, instruction and supervision to the worker regarding the crossing of the conveyor of the low-level unloader. Contrary to Section 25(2)(a) of the Act.

Collins & Aikman Plastics Ltd. fined \$80,000 for a violation of the Occupational Health and Safety Act that resulted in serious foot injuries to an employee.

On Dec. 13, 2002, a worker was attempting to clear a blockage in a press machine when the worker's foot became trapped in a pinch point between a main body floor plate and a descending ejector plate at the rear of the machine. The worker suffered four crushed toes to the right foot.

Collins & Aikman Plastics Ltd. pleaded guilty, as an employer, to failing to ensure the press was equipped with, and guarded by, a guard or other device that would have

prevented access to the pinch point, as required by Section 25 of the Industrial Regulations, contrary to Section 25(1)(c) of the Act.

Enwave District Energy Limited fined \$275,000 for a violation of the Occupational Health and Safety Act that resulted in the death of two workers.

On Oct. 23, 2002, two workers were applying an "epoxy coating" inside a condensing tower tank located on the third floor of the plant when hot pressurized water flowing from a boiler on the ground floor to a condensate tank in the basement flashed into steam and rose up a drainage pipe leading to the condensing tower tank, where the two workers were working. The workers suffered severe burns and later died from their injuries.

A Ministry of Labour investigation found that Enwave District Energy Limited **did not have a written procedure that set out safe practices** for diverting water from a boiler to the condensate tank.

Enwave District Energy Limited pleaded guilty, as an employer, to failing to take the reasonable precaution of having policies and procedures written and followed at the workplace with respect to safe practices and procedures for diverting water and/or steam from a boiler to the condensate tank. Contrary to Section 25(2)(h) of the Act.

Moran Mining & Tunnelling Ltd. fined \$100,000 for a violation of the Occupational Health and Safety Act that resulted in the death of a worker.

On Mar., 7, 2002, a worker was on the bottom deck of a two-level work platform helping drill the walls of a

ventilation shaft when the worker fell off the edge of the platform through a space between the platform and a wall of the ventilation shaft. The worker's body was found about 222.5 metres (730 feet) below at the bottom of the ventilation shaft.

A Ministry of Labour investigation found the worker was wearing a fall arrest harness, but the harness was not anchored and/or connected to anything.

Following a trial, Moran Mining & Tunnelling Ltd. was found guilty, as an employer, of failing to ensure a fall arrest system was used to protect the worker in a situation where the worker was exposed to the hazard of falling more than three metres (9.8 feet), as required by Section 14 of the Regulations for Mines and Mining Plants. Contrary to Section 25(1)(c) of the Act.

The Brick Warehouse Corporation fined \$75,000 for a violation of the Occupational Health and Safety Act that resulted in serious injuries of both arms to a worker.

On Apr., 30, 2003, a worker had been on the truck's passenger side guiding the truck driver who was backing the truck into a private laneway when the worker realized the truck was too close to the parked vehicle. The worker attempted to go around the back of the truck to alert the driver while the truck kept moving backward. when the worker was pinned between the back of the truck and the parked passenger vehicle. The worker received multiple compound fractures to both arms and suffered permanent partial loss of use both limbs. A Ministry of Labour investigation found the injured worker was not wearing a reflective vest.

The Brick Warehouse Corporation pleaded guilty, as an employer, to failing to take the reasonable precaution of requiring a signaller to wear a reflective vest to enhance the worker's visibility. Contrary to Section 25(2)(h) of the Act.

It is easier to do a job right than to explain why you didn't. -Martin Van Buren-

B335-04: Updating the Lift Truck Operator Training Requirements



By Frank St. Pierre

The Canadian Standards Association (CSA) recently published revisions, B335-04, regarding the *Industrial Lift Truck Operator Training Requirements* in Canada.

B335-04 includes more comprehensive training requirements, designed to lower the risk of injuries, to reduce related costs, and to boost productivity. An Annex at the back contains handy resources such as: sample Inspection Sheets; illustration of lift truck types; ergonomic design considerations; and suggested times for both classroom and practical training sessions.

The changes were prompted by the fact that "...*still too many accidents were occurring in the workplace.*" Insufficient training was identified as a major contributor to accidents.


The revised Code updates the existing Standard and harmonizes the requirements in Ontario with ANSI/ASME Standards. The revisions reflect the unique needs of the Canadian workplace environment, such as ergonomics, operator restraint, and training.

Major code revision features include:

- A) Minimum requirements for training;
- B) Requirements for the design, construction, maintenance, inspection and safe operation of lift trucks;
- C) Key elements for the lift truck safety program including general medical and fitness requirements for lift truck operators; and
- D) Minimum requirements for lift truck trainers, maintenance technicians and personnel.



The Standard requires a Training Matrix be developed which includes - **theory, hands-on practical training, knowledge verification, and practical evaluation.** The new Standard recommends repeat training every 36 months, with an evaluation of practical skills every 18 months.

For more information on how this Code will affect your operations, please contact Frank St. Pierre (905) 873-3031, email fstpierre@cybertrain.on.ca 



My mother said I must always be intolerant of ignorance, but understanding of illiteracy. That some people, unable to go to school, were more educated and more intelligent than college professors. - Maya Angelou -



Inexperienced Workers Can Result In Injuries and Death

By William Gow

This past summer, the Toronto Star reported that in 2003, 9 young workers in Ontario were killed on the job. **47,000** workers under the age of 25 were injured, 13,500 of whom were seriously enough injured enough to take time off work. That is only in Ontario!

What disturbing facts to read!

These statistics reveal the challenge faced by inexperienced workers, young persons and new citizens, who join the work force in order to make money to further their life goals.

What responsibilities do we, as employers, have to the inexperienced worker? The Occupational Health & Safety Act (OHSA) clearly states that the employer shall provide, Section 25 (2)(a) "information, instruction and supervision," 25(2)(c), "appoint a competent person," and 25(2)(h) "take every precaution reasonable in the circumstances for the protection of the worker."

A supervisor shall ensure Section 27(1)(b) "that every worker uses or wears the equipment, protective devices or clothing that the worker's employer requires to be used or worn," 27(2)(a) "advise a worker of the existence of any potential or actual danger to the health or safety of the worker of which the supervisor is aware," and 27(2)(c) "take every precaution reasonable in the circumstances for the protection of a worker."

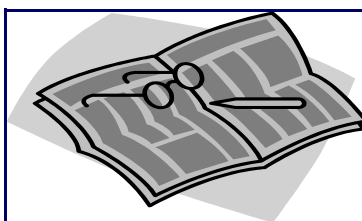
A worker shall, in Section 28(1)(b) "use or wear the equipment, protective devices or clothing that the worker's employer requires to be used or worn," and 28(2)(b) "use or operate any equipment, machine, device or thing or work in a manner that may endanger himself, herself or any other worker; or operate any equipment."

Can you meet your obligations??

We all have an obligation to prevent this carnage as well as the pain and suffering to workers and their families. Employers, supervisors and workers all have **legal responsibilities** to understand workplace hazards and to apply standards that help prevent

injuries and accidents.

Training and education are the key to preventing injuries. We need to get the message across to workers that they must be trained and authorized before operating any equipment or doing any tasks. Only recently have we started discussing the OHSA in schools.



**In 2003:
9 young workers
in Ontario were killed
on the job, and
47,000 workers
under the age of 25
were injured.**

Young and inexperienced workers are unaware of many workplace hazards. Industrial, retail, farming, mining, fishing, and civic businesses are busy and active operations. Young workers often replace skilled and knowledgeable workers who have retired, are on vacation, or are ill. The experienced worker is not on site to teach and advise people of how to work in a safe way.

It is not the role of the Ministry of Labour to establish standards and provide safe work sites. This is the role of employers, supervisors, and training organizations.

I am asking each of you who read this article to make a commitment **RIGHT NOW** to establish a complete training package for new workers at your workplace.

Example of activities:

- ▶ Train and authorize all tasks.
- ▶ Make employees aware of workplace hazards and get acceptance and commitment in the wearing of Personal Protective Equipment (PPE).
- ▶ Encourage workers to report unsafe activities.
- ▶ Ensure that team leaders, supervisors, and forepersons monitor the new workers' activities.

Your company does not need to be one of Ontario's death and injury statistics. For help with your training package for new and established employees, please contact William Gow at (905) 873-3031 or email bgow@cybertrain.on.ca

**"Not everything that is faced can be changed.
But nothing can be changed until it is faced."
- James Baldwin -**

Ask The Expert...

Q. To meet the control reliable requirements of CSA Z142-02, is dual-channel monitoring required for power press safety control circuits?

A. This is another topic which causes great confusion as we work toward upgrading presses and their controls to be in compliance with the CSA Z142-02 Power Press Code deadline of January 2005. The confusion arises from Section 8 of the Standard which states: *“Control-Reliable safety control systems shall be dual channel with monitoring, and designed, constructed, and applied such that any single component failure (including monitoring) shall not prevent the stopping action of the press.”*

The answer to this question lies in dividing the safety control circuit into the functional safety circuit and the monitoring circuit. Safety lights, curtains, two-hand controls, and the clutch and brake control valves are part of the functional safety circuit. Brake monitoring circuits, clutch and brake valve feedback circuits and pressure switches are monitoring circuits. Monitoring circuits on their own do not have the ability to stop or start the machine.

Press control circuits must meet the following three criteria to be in compliance with the definition of control reliability in CSA Z142-02:

1. The monitoring shall generate a stop if a fault is detected.
2. A warning shall be provided if a hazard remains after cessation of motion.
3. Following detection of a fault, a safe state shall be maintained until the fault is cleared.

These criteria can be met using single channel input monitoring circuits. One of the fundamentals of control reliability is that a single component failure will not result in the loss of the normal stopping of the press. Taking this approach failure of any one component of the monitoring circuit would not result in the loss of the normal stopping function of the press. However a loss or a failure of the functional safety circuits would be detected by the monitoring circuit and result in the normal stopping of the press. Single channel monitoring inputs must be properly integrated with the dual channel safety circuit to maintain the dual channel integrity of the safety control circuit. Therefore, single channel monitoring circuits meet the control reliability requirements of CSA Z142-02. For more information, please contact Fraser Dimma P.Eng, (905) 873-3031, email: fdimma@cybertrain.on.ca



Fraser Dimma
P. Eng

Fraser joined Training Services in 2003, and brings with him extensive knowledge of industrial machines and metal working processes. He is an expert in manufacturing and has a good working knowledge of C.S.A., A.N.S.I. and European Safety Codes and Legislation. Fraser's experience qualifies him to be an ideal person to conduct Pre-Start Health and Safety Reviews as required by Section 7 for equipment additions and modifications. Fraser also conducts many of our Power Press related training seminars. Fraser is able to provide valuable services on an urgent basis.

There once was an aspiring Veterinarian who put himself through veterinary school by working nights as a taxidermist.

Upon graduation, he decided he could combine his two vocations to better serve the needs of his patients and their owners, while doubling his practice and, therefore, his income.

He opened his own offices with a sign on the door saying : "Dr. Jones, Veterinary Medicine and Taxidermy—
Either way you get your dog back!"



Positive VS Negative

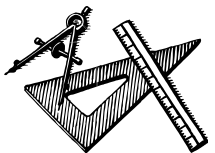
Did is a word of achievement,
Won't is a word of retreat.

Might is a word of bereavement,
Can't is a word of defeat.

Ought is a word of duty,
Try is a word each hour.

Will is a word of beauty,
Can is a word of power!

PHYSICS 101



For those who thought the hardest part of Physics 101 was the conversion from feet and inches to metric, including all its Newtons, Joules, and Watts, here are some other useful conversions:

Ratio of an igloo's circumference to its diameter: Eskimo Pi

2,000 pounds of Chinese soup: Won Ton

1 Millionth of a mouthwash: 1 microscope

Time between slipping on a peel and smacking the pavement:
1 bananasecond

Time it takes to sail 220 yards at 1 nautical mile per hour:
knot-furlong

365 days of drinking low-calorie beer because its less filling:
1 lite year

Half a large intestine: 1 semicolon

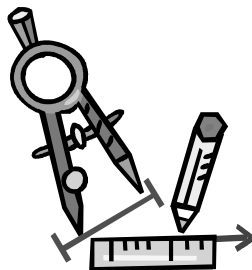
1,000 pains: 1 kilohertz

Basic unit of laryngitis: 1 horsepower

1 kilogram of falling figs: 1 Fig Newton

2.4 statute miles of intravenous surgical tubing at Yale University Hospital: 1 I.V. League

8 nickels: 2 paradimes



**I've got all the money
I will ever need ...
if I die by four o'clock
this afternoon.**

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